WHAT IS CLAIMED IS:

1. A compound comprising the formula:

(I)
$$R_{1} = \begin{bmatrix} R_{2} \\ C \end{bmatrix}_{m} \begin{bmatrix} M \\ a \end{bmatrix}_{a} \begin{bmatrix} K_{1} \\ K_{2} \end{bmatrix}_{a} \begin{bmatrix} K_{1} \\ K_{2} \end{bmatrix}_{a}$$
wherein:

R_i is a polymeric residue;

 Y_1 is O, S or NR_4 ;

M is O, S or NR₅;

E₁ is

$$\begin{array}{c|c}
 & Y_2 \\
 & C \\
 & C \\
 & R_6
\end{array}$$

 E_{2-4} are independently $H,\,E_1$ or

- (a) is zero or one;
- (m) is zero or a positive integer;
- (n) and (p) are independently 0 or a positive integer;

 Y_{2-3} are independently O, S or NR_{10} ;

 $R_{2\text{-}10}$ are independently selected from the group consisting of hydrogen, $C_{1\text{-}6}$ alkyls, $C_{3\text{-}12}$ branched alkyls, $C_{3\text{-}8}$ cycloalkyls, $C_{1\text{-}6}$ substituted alkyls, $C_{3\text{-}8}$ substituted cycloalkyls, aryls, substituted aryls, aralkyls, $C_{1\text{-}6}$ heteroalkyls, substituted $C_{1\text{-}6}$ heteroalkyls, $C_{1\text{-}6}$ alkoxy, phenoxy and $C_{1\text{-}6}$ heteroalkoxy;

D₁ and D₂ are independently OH,

$$(IV) \qquad Y_{4} \qquad \begin{cases} R_{11} \\ Y_{6} \qquad C \\ R_{12} \end{cases} q$$

$$(V) \qquad R_{13} \qquad Y_{5} \qquad Ar \qquad \begin{cases} R_{11} \\ R_{12} \\ R_{12} \end{cases} q$$

$$(V) \qquad R_{13} \qquad Y_{6} \qquad C \qquad B_{2}$$

$$R_{13} \qquad R_{13} \qquad R_{12} \qquad R_{12} \qquad R_{12} \qquad R_{12} \qquad R_{13} \qquad R_{14} \qquad R_{15} \qquad R_{15}$$

or a terminal branching group;

wherein (v) and (t) are independently 0 or a positive integer up to about 6;

(q) is zero or a positive integer;

L₁ and L₂ are independently selected bifunctional linkers;

Y₄₋₇ are independently selected from the group consisting of O, S and NR₁₄;

 R_{11-14} are independently selected from the group consisting of hydrogen, C_{1-6} alkyls, C_{3-12} branched alkyls, C_{3-8} cycloalkyls, C_{1-6} substituted alkyls, C_{3-8} substituted cycloalkyls, aryls, substituted aryls, aralkyls, C_{1-6} heteroalkyls, substituted C_{1-6} heteroalkyls, C_{1-6} alkoxy, phenoxy and C_{1-6} heteroakoxy;

Ar is a moiety which when included in Formula (I) forms a multi-substituted aromatic hydrocarbon or a multi-substituted heterocyclic group;

 $\rm B_1$ and $\rm B_2$ are independently selected from the group consisting of leaving groups, OH, residues of hydroxyl-containing moieties or amine-containing moieties.

2. The compound of claim 1, wherein R₁ further comprises a capping group A, selected from the group consisting of hydrogen, NH₂, OH, CO₂H, C_{1.6} moieties and

$$E_{2} \underbrace{ \begin{array}{c} E_{1} \\ \\ \\ C \\ \\ E_{3} \end{array} }_{E_{4}} \underbrace{ \begin{array}{c} Y_{1} \\ \\ \\ C \\ \end{array} }_{C} \underbrace{ \begin{array}{c} R_{2} \\ \\ \\ R_{3} \end{array} }_{m}$$

3. A compound of claim 2, comprising the formula:

$$E_{2} = \begin{bmatrix} E_{1} & Y_{1} & E_{2} \\ C & N & C \end{bmatrix} + \begin{bmatrix} R_{2} & R_{1} & E_{2} \\ C & R_{3} \end{bmatrix} + \begin{bmatrix} R_{2} & Y_{1} & E_{1} \\ C & R_{3} \end{bmatrix} + \begin{bmatrix} R_{2} & Y_{1} & E_{1} \\ C & R_{3} \end{bmatrix} + \begin{bmatrix} R_{2} & R_{1} & R_{2} \\ R_{3} & R_{1} & R_{2} \end{bmatrix} + \begin{bmatrix} R_{2} & R_{2} & R_{2} \\ R_{3} & R_{1} & R_{2} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{2} & R_{2} & R_{2} \\ R_{3} & R_{2} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{2} & R_{2} & R_{2} \\ R_{3} & R_{2} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{2} & R_{2} & R_{2} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{2} & R_{2} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{2} & R_{2} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{2} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{2} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{2} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{2} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{2} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{2} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{2} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{2} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{2} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{2} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{2} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{2} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{2} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{2} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{2} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{2} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{3} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{3} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{3} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{3} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{3} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{3} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{3} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{3} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{3} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{3} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{3} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{3} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3} \end{bmatrix} + \begin{bmatrix} R_{3} & R_{3} & R_{3} \\ R_{3} & R_{3} & R_{3}$$

4. The compound of claim 1, wherein said terminal branching group comprises the formula:

$$-N - C - E_{36}$$
 $E_{38} E_{37}$

wherein

 E_{36-38} are independently H, E_{35} or

(n) and (p) are independently 0 or a positive integer;

Y₂₋₃ are independently O, S or NR₁₀;

 $R_{6\text{-}10}$ are independently selected from the group consisting of hydrogen, $C_{1\text{-}6}$ alkyls, $C_{3\text{-}12}$ branched alkyls, $C_{3\text{-}8}$ cycloalkyls, $C_{1\text{-}6}$ substituted alkyls, $C_{3\text{-}8}$ substituted cycloalkyls, aryls, substituted aryls, aralkyls, $C_{1\text{-}6}$ heteroalkyls, substituted $C_{1\text{-}6}$ heteroalkyls, $C_{1\text{-}6}$ alkoxy, phenoxy and $C_{1\text{-}6}$ heteroalkoxy;

D'1 and D'2 are independently OH,

or

$$\begin{array}{c|c}
(VII) & E_{45} \\
\hline
-N & C & E_{46} \\
E_{48} & E_{47}
\end{array}$$

wherein (v) and (t) are independently 0 or a positive integer up to about 6;

(q) is zero or a positive integer;

 L_1 and L_2 are independently selected bifunctional linkers;

Y₄₋₇ are independently selected from the group consisting of O, S and NR₁₄;

 R_{11-14} are independently selected from the group consisting of hydrogen, C_{1-6} alkyls, C_{3-12} branched alkyls, C_{3-8} cycloalkyls, C_{1-6} substituted alkyls, C_{3-8} substituted cycloalkyls, aryls, substituted aryls, aralkyls, C_{1-6} heteroalkyls, substituted C_{1-6} heteroalkyls, C_{1-6} alkoxy, phenoxy and C_{1-6} heteroakoxy;

Ar is a moiety which when included in Formula (I) forms a multi-substituted aromatic hydrocarbon or a multi-substituted heterocyclic group;

B₁ and B₂ are independently selected from the group consisting of leaving groups, OH, residues of hydroxyl-containing moieties or amine-containing moieties;

 E_{45} is

$$\begin{array}{c|c}
 & & Y_2 \\
 & & C \\
 & & C \\
 & & R_6
\end{array}$$

 E_{46-48} are independently H, E_{45} or

$$\begin{array}{c|c}
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wherein

D''1 and D''2 are independently OH,

- 5. The compound of claim 3, Y_1 is O.
- 6. The compound of claim 1, wherein R_1 comprises a polyalkylene oxide residue.
- 7. The compound of claim 6, wherein R_1 comprises a polyethylene glycol residue.
- 8. The compound of claim 3, wherein R_1 comprises a polyethylene glycol residue.
- 9. The compound of claim 6, wherein R_1 is selected from the group consisting of

$$-C(=Y_8)-(CH_2)_f-O-(CH_2CH_2O)_x-A$$
, $-C(=Y_8)-Y_9-(CH_2)_f-O-(CH_2CH_2O)_x-A$,

$$-C(=Y_8)-NR_{20}-(CH_2)_f-O-(CH_2CH_2O)_x-A$$
, $-(CR_{21}R_{22})_e-O-(CH_2)_f-O-(CH_2CH_2O)_x-A$,

$$-NR_{20}-(CH_2)_{f}-O-(CH_2CH_2O)_{x}-A, -C(=Y_8)-(CH_2)_{f}-O-(CH_2CH_2O)_{x}-(CH_2)_{f}-C(=Y_8)-(CH_2)_{x}$$

$$-C(=Y_8)-Y_9-(CH_2)_f-O-(CH_2CH_2O)_x-(CH_2)_f-Y_9-C(=Y_8)-,\\$$

$$-C(=Y_8)-NR_{20}-(CH_2)-C(CH_2CH_2O)_x-(CH_2)-NR_{20}-C(=Y_8)-$$

$$-(CR_{21}R_{22})_e$$
-O- $(CH_2)_f$ -O- $(CH_2CH_2O)_x$ - $(CH_2)_f$ -O- $(CR_{21}R_{22})_e$ -, and

wherein:

 Y_8 and Y_9 are independently O, S or NR_{20} ;

x is the degree of polymerization;

R₂₀, R₂₁ and R₂₂ are independently selected from among H, C₁₋₆ alkyls,

 C_{3-12} branched alkyls, C_{3-8} cycloalkyls, C_{1-6} substituted alkyls, C_{3-8} substituted cycloalkyls, aryls, substituted aryls, aralkyls, C_{1-6} heteroalkyls, substituted C_{1-6} heteroalkyls,

 C_{1-6} alkoxy, phenoxy and C_{1-6} heteroalkoxy;

e and f are independently zero, one or two; and

A is a capping group.

- 10. The compound of claim 9, wherein R_1 comprises -O-(CH_2CH_2O)_x and x is a positive integer so that the weight average molecular weight is at least about 20,000.
- 11. The compound of claim 3, wherein R₁ has a weight average molecular weight of from about 20,000 to about 100,000.
- 12. The compound of claim 3, wherein R₁ has a weight average molecular weight of from about 25,000 to about 60,000.
 - 13. A compound of claim 3, comprising the formula

14. The compound of claim 13, wherein D_1 is

$$\begin{array}{c|c}
(\mathbb{IV}) & Y_4 & F_{11} \\
\hline
 & F_{13} & F_{12} \\
\hline
 & F_{12} \\$$

15. The compound of claim 13, wherein D_1 is

$$\begin{array}{c|c} & E_{35} \\ \hline -N - C - E_{36} \\ \hline \\ E_{38} & E_{37} \end{array}.$$

- 16. The compound of claim 1, wherein L_1 is $(CH_2CH_2O)_2$.
- 17. The compound of claim 1, wherein L_2 is selected from the group consisting of $-CH_2$ -, $-CH(CH_3)$ -, $-CH_2C(O)NHCH(CH_3)$ -, $-(CH_2)_2$ -, $-CH_2C(O)NHCH_2$ -, $-(CH_2)_2$ -NH-, $-(CH_2)_2$ -NH-C(O)(CH₂)₂NH- and $-CH_2C(O)NHCH(CH_2CH(CH_3)_2)$ -.
- 18. A compound of claim 1, selected from the group consisting of:

and of
$$A$$
 and A an

wherein R_1 is a PEG residue and D is selected from the group comprising:

$$-NH \longleftrightarrow 0 \xrightarrow{\downarrow} 0 \xrightarrow{\downarrow} B$$

$$-NH \longleftrightarrow 0 \xrightarrow{\downarrow} 0 \xrightarrow{\downarrow} 0 \xrightarrow{\downarrow} B$$

$$-NH \longleftrightarrow 0 \xrightarrow{\downarrow} 0 \xrightarrow{$$

$$-NH \underbrace{ \begin{pmatrix} 0 \\ 0 \\ 2 \end{pmatrix} }_{2} H \qquad \text{and} \qquad \\$$

where B is a residue of an amine or a hydroxyl- containing drug.

- 19. A compound of claim 18, wherein B is a residue of a member of the group consisting of: daunorubicin, doxorubicin; *p*-aminoaniline mustard, melphalan, Ara-C (cytosine arabinoside), leucine-Ara-C, and gemcitabine
- 20. A method of treatment, comprising administering to a mammal in need of such treatment an effective amount of a compound of claim 1, wherein D_1 is a residue of a biologically active moiety.
- 21. A method of treatment, comprising administering to a mammal in need of such treatment an effective amount of a compound of claim 18.

22. A method of preparing a polymer conjugate, comprising: reacting a compound of the formula (VIII):

wherein (v) and (t) are independently 0 or a positive integer up to about 6;

L₁ and L₂ are independently selected bifunctional linkers;

 Y_{4-7} are independently selected from the group consisting of O, S and NR_{14} ;

 R_{11-14} are independently selected from the group consisting of hydrogen, C_{1-6} alkyls, C_{3-12} branched alkyls, C_{3-8} cycloalkyls, C_{1-6} substituted alkyls, C_{3-8} substituted cycloalkyls, aryls, substituted aryls, aralkyls, C_{1-6} heteroalkyls, substituted C_{1-6} heteroalkyls, C_{1-6} alkoxy, phenoxy and C_{1-6} heteroalkoxy;

Ar is a moiety which when included in Formula (I) forms a multi-substituted aromatic hydrocarbon or a multi-substituted heterocyclic group; and

B'₁ is a residue of a hydroxyl- or an amine-containing moiety; with a compound of the formula (IX):

$$R_{1} = \begin{cases} R_{2} \\ C \\ R_{3} \end{cases} m \begin{cases} Y_{1} \\ C \\ E_{8} \end{cases} K_{1} = \begin{cases} E_{5} \\ C \\ E_{6} \end{cases} (IX)$$

wherein

$$E_{s} \text{ is } - \left(\begin{array}{c} R_{7} \\ C \\ R_{6} \end{array} \right) \begin{pmatrix} Y_{2} \\ C \\ - D_{3} \end{pmatrix}$$

E₆₋₈ are independently H, E₅ or

$$\begin{array}{c|c}
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wherein

D₃ and D₄ are independently OH, a leaving group which is capable of reacting with an unprotected amine or hydroxyl or a terminal branching group;

 R_1 is a polymeric residue;

 Y_1 is O, S or NR_4 ;

M is O, S or NR₅;

(n) and (p) are independently 0 or a positive integer;

Y₂₋₃ are independently O, S or NR₁₀; and

 R_{2-10} are independently selected from the group consisting of hydrogen, C_{1-6} alkyls, C_{3-12} branched alkyls, C_{3-8} cycloalkyls, C_{1-6} substituted alkyls, C_{3-8} substituted cycloalkyls, aryls, substituted aryls, aralkyls, C_{1-6} heteroalkyls, substituted C_{1-6} heteroalkyls, C_{1-6} alkoxy, phenoxy and C_{1-6} heteroalkoxy;

under conditions sufficient to cause a polymeric conjugate to be formed.